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10/578,924	05/14/2007	Makis Kasapidis	L8638.06108	3856
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EXAMINER				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/578,924

Applicant(s)

KASAPIDIS, MAKIS

Examiner

YONG ZHOU

Art Unit

2477

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/22)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites a limitation “adjacent to said subnet controlled by **the apparatus itself**”. It renders the claim indefinite because it is unclear which of the “plurality of access router apparatuses” it refers to.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Agrawal, Prathima et al. (US 2002/0118656, hereinafter Agrawal).

Regarding claim 1, Agrawal teaches an access router apparatus to control a subnet (Fig. 2A, #220₁, [0021], lines 3-8, [0023], lines 1-3), said apparatus comprising:

address information storing means for storing address information usable in at least one adjacent subnet arranged adjacent to said subnet controlled by the apparatus itself (Fig. 2A, #220₁, #220₂, #261, [0014], lines 12-14, [0025], lines 8-11, wherein the memory #261 of a serving base station #220₁ is used to store the IP address for mobiles stations requested from neighboring base stations to be used by the mobile station when entering a adjacent base station);

address selecting means for selecting said address information stored in said address information storing means (Fig. 2A, #220₁, #220₂, #261, Fig. 3A, #330, [0014], lines 1-8, [0025], lines 4-10, [0026], lines 1-10, [0027], lines 1-8, [0039], lines 1-10, wherein after the serving base station detects the need to hand off a mobile station to a neighboring cell, the serving base station communicates with the target base station to activate the forward IP address requested for the mobile station to use in the target cell, by changing the state of the forward address to ACTIVE, and then informs the mobile station of the forward address to be used as soon as the mobile station moves into the cell of the target base station); and

address providing means for providing said address information selected by said address selecting means to a mobile terminal connected to said subnet controlled by the apparatus itself (Fig. 2A, #220₁, #220₂, #261, [0014], lines 4-8, [0025], lines 4-7 and 10-13, wherein the servicing base station provides the selected IP addressed to the mobile while the mobile is still under the control of the serving base station).

Regarding claim 7, Agrawal teaches a communication handover system, comprising a plurality of access router apparatuses, each controlling a subnet (Fig. 2A, #220₁ through #220₇, #255, [0021], lines 3-8, [0023], lines 1-3), wherein a specific access router apparatus (Fig. 2A, #220₁) among said plurality of access router apparatuses comprises:

address information storing means for storing an address information usable in at least one adjacent subnet arranged adjacent to said subnet controlled by the apparatus itself (Fig. 2A, #220₁, #220₂, #261, [0014], lines 12-14, [0025], lines 8-11, wherein the memory #261 of a serving base station #220₁ is used to store the IP address for mobiles stations requested from neighboring base stations to be used by the mobile station when entering a adjacent base station), address selecting means for selecting said address information stored in said address information storing means (Fig. 2A, #220₁, #220₂, #261, Fig. 3A, #330, [0014], lines 1-8, [0025], lines 4-10, [0026], lines 1-10, [0027], lines 1-8, [0039], lines 1-10, wherein after the serving base station detects the need to hand off a mobile station to a neighboring cell, the serving base station communicates with the target base station to activate the forward IP address requested for the mobile station to use in the target cell, by changing the state of the forward address to ACTIVE, and then informs the mobile station of the forward address to be used as soon as the mobile station moves into the cell of the target base station), and address providing means for providing said address information selected by said address selecting means to a mobile terminal connected to said subnet controlled by the apparatus itself (Fig. 2A, #220₁, #220₂, #261, [0014], lines 4-8, [0025], lines 4-7 and

10-13, wherein the servicing base station provides the selected IP address to the mobile while the mobile is still under the control of the servicing base station); and wherein said mobile terminal acquires said address information stored in said address information storing means from said specific access router apparatus under the condition that it is connected to said subnet of said specific access router prior to the handover to said adjacent subnet from said subnet ([0007], lines 12-15, [0014], lines 4-8, [0038], lines 17-21, wherein the mobile station requests the IP address to be used in a neighboring cell from the servicing base station while the mobile is still under the control of the servicing base station and within the servicing base station's cell).

Regarding claim 8, Agrawal teaches a communication handover method in a communication handover system, comprising a plurality of access router apparatuses, each controlling a subnet (Fig. 2A, #220₁ through #220₇, #255, [0021], lines 3-8, [0023], lines 1-3), said method comprising the steps of:

acquiring and maintaining an address information usable in at least one adjacent subnet arranged adjacent to said subnet controlled by the apparatus itself by one access router apparatus among said plurality of access router apparatuses (Fig. 2A, #220₁, #220₂, #261, Fig. 3A, #310-312, [0014], lines 1-4 and 12-14, [0025], lines 4-10, wherein each base station (e.g., serving base station) requests IP addresses for the mobile stations it currently serves from neighboring base stations and stores the requested address in the memory #261; the IP address is to be used by the mobile station when entering a adjacent base station); and

providing said address information maintained by said access router apparatus where said mobile terminal is connected when a mobile terminal connected to one access router apparatus among said plurality of access router apparatuses carries out handover to said adjacent subnet from said subnet controlled by one access router apparatus among said plurality of access router apparatuses (Fig. 2A, #220₁, #220₂, #261, [0012], lines 1-5, [0014], lines 4-12, [0025], lines 4-7 and 10-13, wherein the servicing base station provides the selected IP addressed to the mobile while the mobile is still under the control of the serving base station and within the serving base station's cell; the assigned IP address is used by the mobile when moving to an adjacent cell in a handoff).

Regarding claim 2, Agrawal further teaches that there is provided address information updating means for acquiring said address information from the access router to control said adjacent subnet and for storing said acquired address information to said address information storing means (Fig. 2A, #220₁, #220₂, #261, Fig. 3A, #310-312, [0014], lines 1-4, [0025], lines 4-10, wherein each base station (e.g., serving base station) requests IP addresses for the mobile stations it currently serves from neighboring base stations).

Regarding claim 3, Agrawal further teaches that said address selecting means is designed to select said address information to be provided to said mobile terminal in response to a request from said mobile terminal ([0007], lines 12-15, [0013], lines 1-4,

[0038], lines 17-21, wherein the serving base station selects and assigns an IP address to a mobile station in response to the mobile's request).

Regarding claim 4 Agrawal further teaches that said address selecting means selects said address information usable in said adjacent subnet at handover destination of said mobile terminal according to identification information related to said adjacent subnet received from said mobile terminal ([0038], lines 17-21, wherein the forward address obtained from the neighboring cell that is identified by the mobile station's request).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal in view of Ono, Shinichi (US 6,609,152, hereinafter Ono).

Regarding claim 5, Agrawal teaches the limitations of claim 1.

Agrawal does not expressly teaches that, in case said address information is provided by said address providing means to said mobile terminal, said address information provided by said address providing means is deleted from said address information stored in said address information storing means.

Ono teaches that once a MAC address management apparatus assigns to a network device a MAC address selected from a MAC address file. Once the assigned address is stored at a network device, the address is deleted from the MAC address file (col. 1, lines 25-33, col. 2, line 53 through col. 3, line 2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Agrawal invention with teachings from Ono to delete the assigned address from the address storage to prevent double use of the address by another device (Ono, col. 1, lines 30-33).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal in view of Koodli, Rajeev et al. (US 2004/0081122, hereinafter Koodli).

Regarding claim 6, Agrawal teaches the limitations of claim 1, including the address providing means designed to transmit the address information selected by the address selecting means to the mobile terminal.

Agrawal further teaches that said apparatus is provided with a function relating to fast handover ([0012], lines 1-5).

Agrawal does not specifically teach that said address providing means is designed to transmit FBack message or PrRtAdv message including said address to be provided to the mobile terminal.

Kodaly teaches that the mobile node may obtain information about the new access router and unconfirmed address for example through a proxy router

advertisement (PrRtAdv) while connected to a previous access router prior to handover. ([0052], lines 3-7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Agrawal invention with teachings from Koodli to provide the IP address to the mobile through a proxy router advertisement (PrRtAdv), or the like, while connected to a previous access router prior to handover to reduce the handover latencies (Koodli, [0009], lines 9-12, [0033], lines 1-5).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Won, Chan Yeon et al. (US 2004/0203740)

Reddy, Joseph Soma et al. (US 2005/0226197)

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONG ZHOU whose telephone number is (571)270-3451. The examiner can normally be reached on Monday - Friday 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yong Zhou/
Examiner, Art Unit 2477

May 17, 2010